## Partnerships - The Key to Pollution Prevention and Environmental Sustainability

September 18, 2019



Michael P. Kuss, General Manager Michigan City Sanitary District











# <u>Partner</u> - A partner is person who shares or is associated with another person in some action or endeavor.









## Partnerships = Teamwork













# Team - Two or more people working together; Co-operation between those who are working on a task.







# Teamwork - The willingness of a group of people to work together to achieve a common goal.

























## 2019 Partners for Pollution Prevention Theme

# Partnering for Environmental Progress: What is your Story?







## 2019 Partners for Pollution Prevention Theme

Partnering for Environmental Progress: What is your Story?

This is Our Story... Once upon a time... in a land far up north... along the southern shores of Lake Michigan... there was a place called Michigan City...









## 2019 Partners for Pollution Prevention Theme

Partnering for Environmental Progress: What is your Story?

...This town had a nice friendly Mayor... Who was loved by all... And his first order of business was to issue a Proclamation for All the Land.









## Proclamation Jan 1, 2012

Hear Ye, Hear Ye... Effective immediately, all departments will work together for the common good. We are one team working for common goals and we will seek out new partnerships to help us achieve our goals!



Mayor Ron Meer



## MICHIGAN CITY, INDIANA











## MICHIGAN CITY, INDIANA









## **Partnerships**

#### Michigan City Partners Include:

The Lead Committee

Indiana State Department of Health

**US Housing and Urban Development** 

**August Mack Environmental Consultants** 

Environmental, Inc.

**Redevelopment Commission** 

Plews, Shadely, Racher, & Braun

James Meyer & Associates, PC

**IDEM** 

BCA Environmental Consultants, LLC

**Energy Service Group** 

The Northern Indiana Public Service Company (NIPSCO)

**Indiana University** 

The Sustainability Commission





## **Partnerships**

#### **Michigan City Partners Include:**

Ozinga Energy, LLC

**DLZ Engineering** 

University of Illinois at Chicago

America Association of Laboratory Accreditation (A2LA)

**Group Seven Laboratory Services** 

The Blue SWAG Group

**Purdue University** 

**IDNR** 

USACE

**Weaver Consultants** 

Alliance for the Great Lakes

The Delta Institute

**V3** Engineering

**GAF** 





## **Partnerships**

#### Michigan City Partners Include:

National Fish and Wildlife Federation

Sustain Our Great Lakes Program

ArcelorMittal, EPA, U.S. Fish and Wildlife Service, U.S. Forest Service, NOAA, and USDA.

The Great Lakes Commission

West Michigan Environmental Action Council (WMEAC)

Partners for Clean Air

Arcelor Mittal, NIRPC, Keramida, NIPSCO, Gary Southshore Rail Cats, GAF, Metro Recycling, Hammond Port Authority and LaPorte County Health Department

**Grand Valley State University** 

**Trail Creek Watershed Group** 

**Other Local Partners** 

Haas & Associates, John Doyle & Associates, America Structure Point Engineering, Global Engineering, Ciorba Engineering, SEH Engineering, The Smith Group, and Jones & Henry Engineering.

\*Note: these are just <u>some</u> of the Our Many Partners





## City of Michigan City Pollution Prevention Initiatives:

- 1. Lead Committee / LeadSafe Michigan City Lead Abatement Program
- 2. Begley Cleaners
- 3. Brownfields Assessment Program
- 4. Energy Savings Project
- 5. Green House Gas Inventory
- 6. Sustainability Commission







# LEAD COMMITTEE & LEADSAFE MICHIGAN CITY LEAD ABATEMENT PROGRAM







## CREATION OF THE LEAD COMMITTEE

- January 2017
- Proactive Approach to Addressing Lead Contamination and Lead Poisoning Issues that Impacts Low Income and Minority Families at an Alarming Rate.



The Only City in the State to have such a Committee.



## CREATION OF THE LEAD COMMITTEE

## Mayor Meer states when forming the Committee:

"Although we are confident that the City of Michigan City not only meets, yet exceeds, state and federal standards in regards to supplying our citizen's clean drinking water, lead contaminates can come in many forms beyond just water. It is vitally important that our citizens have the knowledge and resources at their disposal should they want to further investigate any potential lead concerns they may have."





## LEAD COMMITTEE OBJECTIVES

- Working Committee The Committee will be a working committee that will meet and report regularly to the Mayor, the Michigan City Common Council, and to the public.
- Educate The Committee will strive to find better ways educate our community about the dangers of lead.
- Awareness The Committee will strive to find better ways to promote awareness of and access to the many available resources at the local, state, and federal levels, on the topic of lead.

## COMMITTEE MEMBERS / PARTNERS

- Michael Kuss, Committee Chairman (MCSD)
- Deborah Chubb (MCAS Board Member, Private Consultant)
- Don Przybylinski (President, City Council)
- Chris Johnson (Water Dept)
- Rob Johnson (MCSJG)
- Sue Downs (Planning Department)
- Albertine Allen (Minority Health Partners of LaPorte Co.)
- Kimberley Williams (Local Pastor)
- Sean Fitzpatrick (City Council Member)
- Dan McCoy (MCSD Safety Consultant)
- Sherry Wilson (Redevelopment CDBG/HUD)
  - Destiny Morris (MCSD, Non-Member/Administrative Assist.)



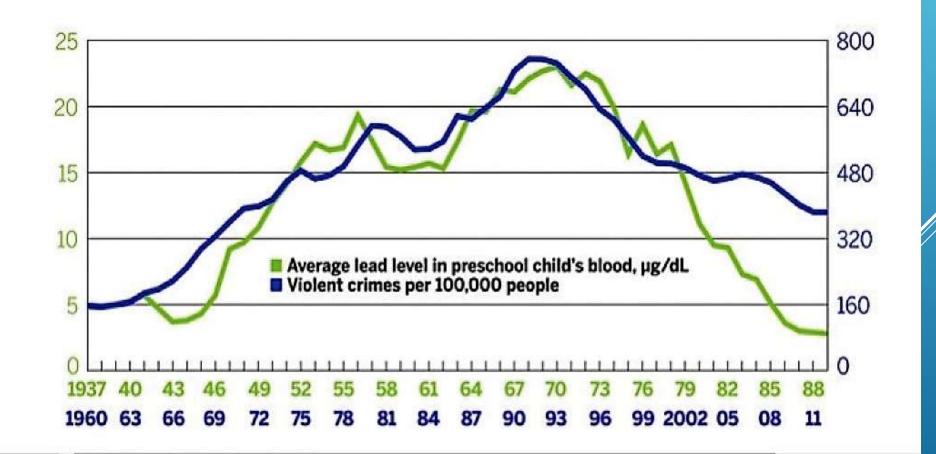


## HEALTH EFFECTS OF LEAD

- -Adult: Abdominal/digestive issues to death.
- -Children: Doctors now believe there is NO SAFE LEVEL. Exposure may cause attention, behavioral, developmental, and cognitive disorders. Effects can be permanent. Current action level is  $5 \mu g/dL$ .
- -Pregnant Women: CAN transfer lead to their fetuses, even in not experiencing symptoms. Lead linked to miscarriage, premature birth, low birth size, and impaired brain development

## DR. RICK NEVIN'S RESEARCH

Lead Poisoning's Impact on Violent Crime in the United States.







## LEAD-BASED PAINT

**Source -** Greatest source of Lead

Contamination in Children is Lead-Based Paint





## **HOW ARE CHILDREN EXPOSED TO LEAD?**

Old housing (pre-1978) - the older the more likely.

- Very fine lead-based paint dust (inhaled or ingested)
- Weathered or impacted surface
- Exterior Paint/Soil/Dripline





## RISK IN MICHIGAN CITY

Old Housing Stock - 76% of housing in MC was built before 1978.





## LEAD COMMITTEE ACTIVITIES & PROJECTS

- Over 40 Meetings to date (first meeting February 1, 2017)
- 30,000 educational flyers/letters in water bills
- Letters sent to area physicians
- Worked with City Water Dept
- Research, networking, Workshops
- Draft Lead-safe housing ordinance
- Meetings with State Legislators
- Presentations and Outreach to Churches
- Information is available Online
- Local grant applications
- Letters to Schools suggesting testing of drinking water
- Presentation and Outreach to Michigan City Area Schools
- Secured Participation in State of Indiana Lead Abatement Grant Program
- Secured HUD \$2,300,000 HUD Grant





## MICHIGAN CITY AREA SCHOOLS

**Drinking Water** - All Drinking Water Fountains and Sinks Tested for Lead.

Pre-School Testing - First and Only School System in Indiana to Require Lead Screening for All Incoming Kindergarten Students.





## STATE OF INDIANA LEAD ABATEMENT GRANT PROGRAM

• Eligibility - Participation in the State of Indiana Lead Abatement Grant Program was only available to a handful of Indiana Cities: East Chicago, Evansville, South Bend, Indianapolis, Gary, and Hammond.

• Persistence - by the Lead Committee Paid Off...In 2019, Michigan City was admitted to the "Club."





#### STATE OF INDIANA GRANT PROGRAM

- Program Covers a lead assessment of your home at no cost to the home owner or renter.
- Costs Included 100% of the Cost of any Lead Abatement.
- Applications are available on-line at the Sanitary District Web site or at the Sanitary District.
- Michigan City To date approximately 30 applications have been received from Michigan City Residents More Than Any Other City in Indiana!!!!





# HUD LEAD ABATEMENT GRANT AWARDED 2019

- ▶ \$2,000,000 Lead Hazards Control Grant
  - ▶ City of Michigan City will match with \$420,000
- ▶ \$300,000 Healthy Homes Grant
  - No Match Required
- ► Total amount = \$2,720,000



# HUD LEAD ABATEMENT GRANT AWARDED 2019

Project Description: LeadSafe Michigan City

#### Focus Area:

- All of Michigan City
- Emphasis on neighborhoods with the highest incidence of childhood lead poisoning and/or with the greatest risk of lead exposure based on state and local data.





#### LEADSAFE MICHIGAN CITY

**Project Goals:** LeadSafe Michigan City

- Make 120 units lead safe.
- Protect 105 children under the age of 6 from lead hazards.
- Screen 1,500 children through lead testing.
- Train 6 residents as Certified Community Health Workers.
- Train 360 individuals in either lead safe cleaning practices or lead safe work practices.





#### LEADSAFE MICHIGAN CITY

**Project Goals:** LeadSafe Michigan City

- Assist 30 Section 3 eligible individuals and companies with obtaining professional certification to perform lead remediation.
- Conduct 126 community outreach events.
- Conduct comprehensive Healthy Homes interventions in 90 units.
- Create the LeadSafe Michigan City Housing Registry and Program Webpage.





#### **ECONOMIC BENEFITS OF LEAD ABATEMENT**

- Dr. David Jacobs:
  - Full lead-hazard abatement for pre-1978 homes \$1.00 spent = \$1.17 in return.
  - On pre-1960 homes \$1.00 spent = \$1.39 in return.
  - Enforced compliance with Renovation, Repair, and Painting Programs \$1.00 spent = \$3.10 in return.
- Mother Jones:



Factoring in 10% crime reduction \$1.00 spent = \$10.00 in return.



- How the Property was Obtained Michigan City Redevelopment Commission (RC) recently obtained, through a tax sale, a site located at 1033 E. Michigan Boulevard, where a former Concord Cleaners, owned by the Begley Company, existed from 1966 to 1991.
- RC Aware of Potential Contamination The RC was aware that the site was contaminated by historical drycleaning when it acquired the property.

- RC Hired Consultants The RC engaged environmental consultants (August Mack Environmental and Environmental, Inc.) to investigate and determine the extent of the dry-cleaning solvent contamination and, recently, the RC received the consultants' report.
- PERC Release The report describes, with a high degree of confidence, that the dry-cleaning solvent (PERC) was released at the 1033 E. Michigan Boulevard site and has migrated northward toward Trail Creek.

#### **Partners**

- Michigan City Sanitary District
- Redevelopment Commission
- August Mack, Environmental Consultants
- Environmental, Inc
- Plews , Shadley, Racher, & Braun
- Jim Meyer & Associates, PC
- IDEM

REDEVELOPME NT COMMISSION









JAMES MEYER & ASSOCIATES, PC



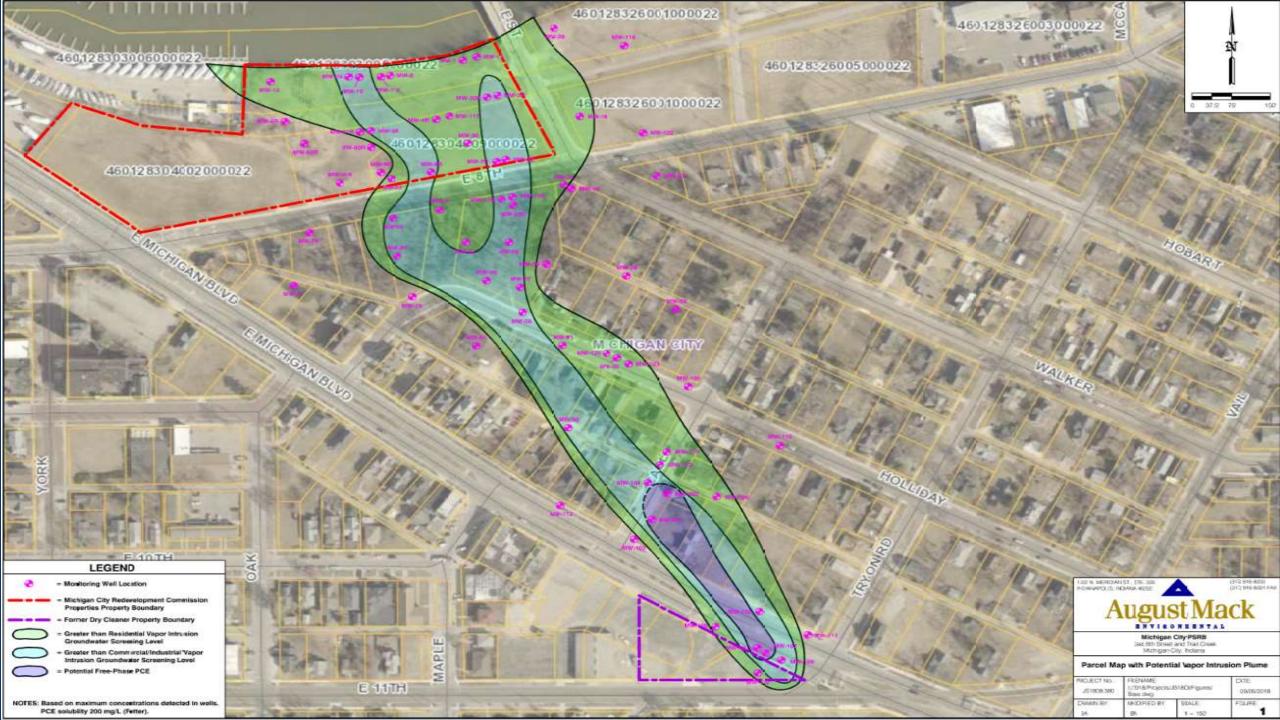




• Area Affected - The City believed that a limited number of homes were potentially affected by this release. However, in an abundance of caution, the City notified all residents (64 in total) in a four block area bounded by Tryon Rd, Walker Street, Michigan Boulevard, and 8th Street.







- City is Not Responsible The City is not a Potential Responsible Party (PRP) and did not have Vapor Intrusion sampling and testing or ground water monitoring work conducted as any part of an IDEM enforcement action.
- Proactive Approach The City had the sampling and monitoring work conducted voluntarily, out of a concern for the public welfare and safety of its residents.





- <u>Sampling</u> Two rounds of vapor intrusion testing were conducted:
  - August thru November 2018.
  - February 2019.





- Sample Results
  - All Indoor Air sampling results were <u>below</u> the IDEM Immediate Action Levels.
  - All Indoor Air sampling results were also <u>below</u> the IDEM Screening Levels, with the exception of two (2) residences that showed results slightly above the Screening Levels for tetrachloroethene and trichloroethane.





Mayor Meer – "I am extremely proud of my staff for quickly implementing this work and for their dedication to the health and well-being of the residents of our community. Recent reports, from around the State, of the health effects of potential ground water contamination, demonstrates the need for communities to act quickly in the best interest of public health when such situations are discovered. My administration will continue to react quickly and to take the necessary steps to help ensure the safety of our residents."

Mayor Meer – "As long as I am the Mayor, I assure you, Michigan City will continue to be a leader in the area of public health and safety and, hopefully, other communities throughout Indiana can look toward Michigan City as a strong example where such efforts are creating positive results."





# MICHIGAN CITY BROWNFIELD COALITION













# MICHIGAN CITY BROWNFIELD COALITION BROWNFIELDS ASSESSMENT GRANT

- Awarded \$600,000 to the Michigan City Brownfield Coalition
- Addresses hazardous substances & petroleum
- Grant Period: 10/1/18 through 9/30/21
- To be used to stimulate brownfields redevelopment





REDEVELOP MENT COMMISSION



# MICHIGAN CITY BROWNFIELD COALITION / PARTNERS









**BCA Environmental Consultants, LLC** 







JAMES MEYER & ASSOCIATES, PC





#### **BROWNFIELDS ASSESSMENT GRANT**



#### WHAT IS A BROWNFIELD?

The U.S. Environmental Protection Agency (EPA) defines a brownfield as "...property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant"





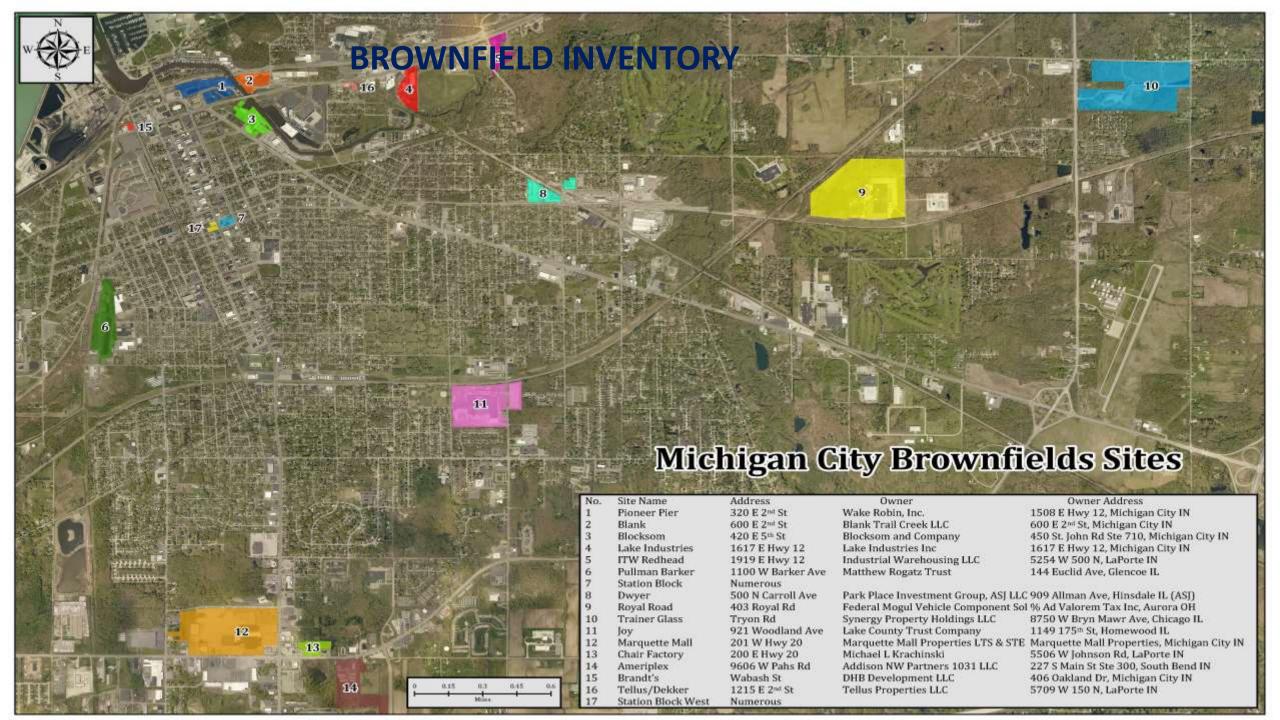
#### **BROWNFIELDS ASSESSMENT GRANT**



#### WHAT WILL (OR CAN) BE DONE

- Brownfield Inventory
- Phase I Environmental Site
   Assessments (ESAs)
- Phase II ESAs
- Cleanup Planning
- Community Engagement





#### BENEFITS OF BROWNFIELD REDEVELOPMENT

#### **Overall Benefits**

- Job creation
- Removal of blight
- Increased property value
- Reduction of contamination
- Increased tax base
- Affordable housing

#### **Property Benefits**

- Clarifies environmental conditions
- Make property more marketable
- Most lending institutions, loan servicing companies, and purchasers require Environmental Assessments





#### 2019 CITY ENERGY SAVINGS PROJECT

Twelve (12) Energy Savings Projects City Wide, Including:

- Heating and Ventilation
- LED Lighting; and
- Solar Panels.

#### **Partners:**

Energy Service Group (ESG











#### GREENHOUSE GAS EMISSIONS PROJECT

**Project Name:** Michigan City Resilience Cohort

Funding - The Project is Funded by a Grant and is Part of the Indiana Development Sustainability Program at Indiana University.

Leader - Abhishek Jagdale, First Year MSEA-MPA Student from Indiana University is the Project Lead.

Goals - Identify Ways to Reduce Greenhouse Gas

Emissions City-wide.



#### MICHIGAN CITY SUSTAINABILITY COMMISSION

Established - March 20, 2019, the Commission on Sustainability was formed by City Ordinance #4507

Startup - Michigan City Sustainability Commission First Meeting was held on Wednesday, May 29, 2019.





#### MICHIGAN CITY SUSTAINABILITY COMMISSION

#### ► Chair Person:

Dalia Zygas - Citizen

#### **▶** Members:

- Clarence Hulse Michigan City, Economic Development
- Madison Gresham Barker Middle School
- ► Amerie Watkins Krueger Middle School
- ► Gwen Sardon- Michigan City High School
- ▶ Faye Moore Citizen
- ▶ Sheree Wilson Citizen

- ▶ Daisy Lee Citizen
- ▶ Larry Zimmer Citizen
- ► Andrea Jahnz-Davis Citizen
- ► Nancy Moldenhauer Citizen
- Dalia Zygas Citizen
- ► Deborah Chubb Citizen





#### MICHIGAN CITY SUSTAINABILITY COMMISSION

#### Purpose and Objectives:

- Coordinate communication between agencies, departments, commissions, and boards working on sustainability issues and education.
- Perform outreach and coordinate grant development relevant to support sustainability.
- Provide information about current and planned lócal environmental projects.

### MICHIGAN CITY SUSTAINABILITY COMMISSION Purpose and Objectives:

- Advocate for the conservation of energy sources and the use of renewable, clean energy.
- Encourage recycling and the use of recycled materials,
- Promote the development of public green spaces, sidewalks, and bike paths.
- Assure a coordinated City-wide effort in achieving a comprehensive sustainability program in our community.

#### Michigan City Sanitary District Pollution Prevention Initiatives:

- 1. Compressed Natural Gas (CNG) Refueling and Vehicles
- 2. Energy Savings Project
- 3. Laboratory Accreditation Project
- 4. Blue SWAG
- 5. Great Lakes Mentoring Network
- 6. Karwick Dumpsite Remediation Project
- 7. Cheney Run Stormwater Wetland Treatment Project
- 8. Partners for Clean Air
- 9. Conference on the Environment
- 10.W. G. Jackson



# The Michigan City Sanitary District Responsible for:

- All Wastewater Treatment
  - All Sanitary and Combine Sewers
  - All Wastewater Treatment 12 MGD
  - All Disposal of Biosolids, Grit, and Screenings
  - NPDES Permit Program Compliance





### The Michigan City Sanitary District Responsible for:

- All Stormwater Management
  - All Storm Sewers
  - All Court (Legal) Drains
  - All Other Ditches
  - All Green Infrastructure
  - The implementation of the IDEM required Municipal Separate Storm Sewer System (MS4) Program





## The Michigan City Sanitary District Responsible for:

- All Trash and Refuse Pickup
  - 12,000 Customers
  - Special Pickups
  - Construction Debris
  - Demolition of unsafe garages, sheds, etc.





#### The Michigan City Sanitary District

#### **Guiding Principles:**

- Environmental Stewardship
- Sustainability
- Pollution Prevention





# Compressed Natural Gas (CNG) Refueling and Vehicles

- -CNG Refueling Station
  - Two 40 HP Compressors
  - Four Storage Tanks
- -Seven CNG-fueled light trucks
- -Four Refuse CNG Fueled Trucks
- -One CNG Fueled Sewer Cleaning Machine





# Compressed Natural Gas (CNG) Refueling and Vehicles

- -Reductions in Emissions
  - 179 pounds of VOCs per year
  - •614 pounds of carbon monoxide per year and,
  - 8,090 pounds of carbon dioxide per year





# Compressed Natural Gas (CNG) Refueling and Vehicles

**Partner:** 

Ozinga Energy, LLC























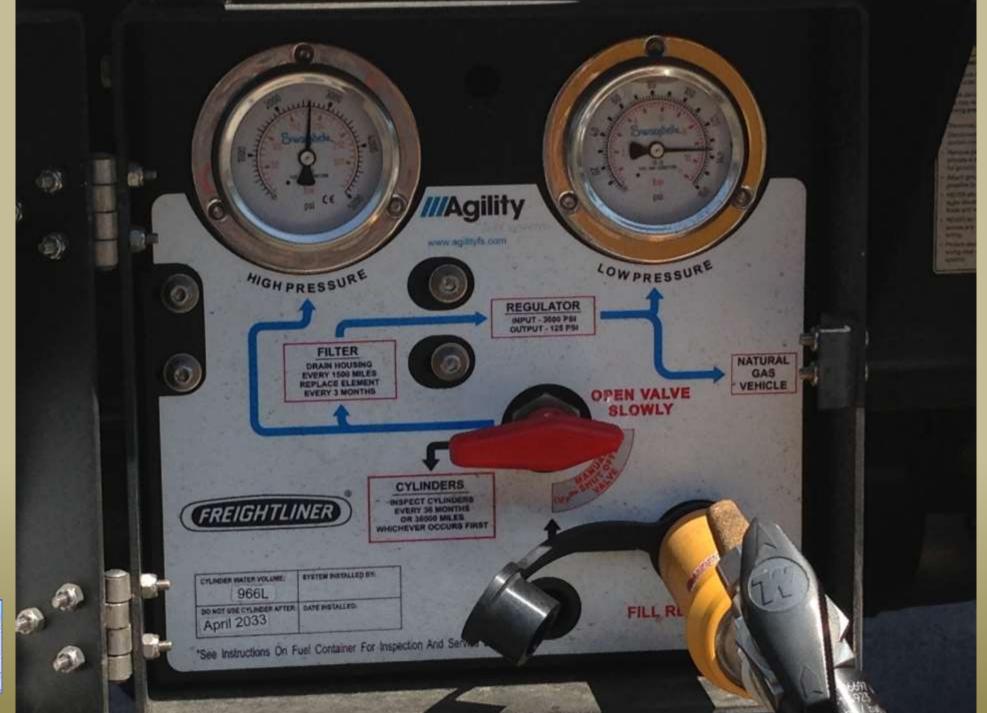
















- Final Approved Plan:
  - \$1,800,000 in Plant improvements in the categories of:
    - <u>Aeration</u> Two (2) new turbo blowers along with dissolved oxygen control.
    - Chemical Feed new pumps to more accurately feed and control ferric chloride.
    - <u>Lighting</u> improved lighting to improve safety and energy savings.





## **Partners:**

**Energy Service Group NIPSCO** 

**DLZ Engineering** 











## LED Lighting

- Nearly Every Light at the Michigan City Sanitary District was changed to an LED Light; and
- Most Needed New LED Fixtures























## **Chemical Feed Pumps**

 Chemical Feed Pump was installed in January 2018











### **Turbine Blowers**

 Two New Turbine Blowers were Installed and Became Operational in April 2018













































# PRESS RELEASE

The project will result in economic and environmental benefits for the City and its ratepayers with guaranteed savings of over \$164,000 annually over the term of the contract, and a one time \$190,988.80 incentive through NIPSCO.







### Turbo Blowers - September 26, 2018

## PRESS RELEASE



Expressing his pleasure with this project, Mayor Ron Meer, proclaimed, "Our commitments to clean water, environmental protection, and energy conservation are



paramount to the success of
Michigan City. Efficient operation
of City Utilities, that provide
excellent customer value, is a key
to the growth and sustainability of
Michigan City. Under my leadership

the Sanitary District has unbraced these principles and I applaud their efforts to partner with ESG, NIPSCO, and DLZ in this endeavor."



## Turbo Blowers - September 26, 2018









### **Yearly Reductions**

### **LED Lighting:**

- Electrical power consumption of approximately 252 megawatt-hours
- 832 pounds of sulfur dioxide;
- 529 pounds of nitrogen oxide; and
- 475,000 pounds of carbon dioxide.





### **Yearly Reductions**

### **Turbo Blowers:**

- Electrical power consumption of approximately 1,012 megawatt-hours;
- 4,000 pounds of sulfur dioxide;
- 2,500 pounds of nitrogen oxide; and
- 2.3 million pounds of carbon dioxide.





# 2019 Energy Study Partner

**UIC** University of Illinois at Chicago

Michigan City Sanitary District Findings -

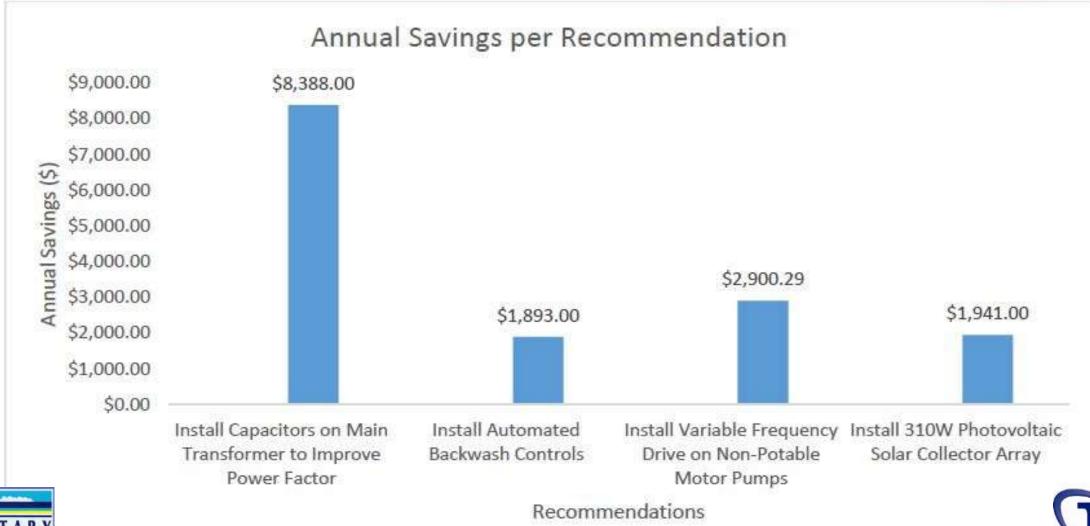
- Four (4) Energy Saving Opportunities were identified
- Total Project Cost is estimated to be \$31,745.
- Annual Reductions/Savings
  - -128,844 kWH of electricity consumption;
  - -91 tonnes of CO2
  - **-\$15,122**

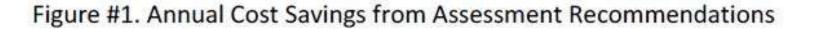




## 2019 Energy Study







OF MICHIGAN CITY

## Laboratory Accreditation Project

### **Partners:**



American Association of Laboratory Accreditation



**Group Seven Laboratory Services**Exceeding Expectations







### **Accredited Laboratory**

A2LA has accredited

#### SANITARY DISTRICT OF MICHIGAN CITY

Michigan City, IN

for technical competence in the field of

#### Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 3rd day of May 2019.

Vice President, Accreditation Services For the Accreditation Council Certificate Number 3807.01 Valid to March 31, 2021





## Laboratory Accreditation Project

## **ISO/IEC 10725 Testing/Calibration Laboratories**

- A2LA accreditation provides international credibility and compliance to organizations operating within dozens of industries.
- <u>A2LA accreditation</u> programs fulfill regulatory requirements and demonstrate competence and integrity to stakeholders.
- Michigan City Sanitary District is the <u>only Municipal Laboratory in</u> the State of Indiana Accredited to the ISO/IEC 10725 Standard.





# Laboratory Accreditation Project







# **BLUE SWAG**

The Stormwater Advisory Group (SWAG)... and "Blue" because blue reminds us of clean water...

- Meeting Monthly to discuss and address stormwater issues throughout the City
  - ► <u>Partners</u>: Planning, Parks, Engineering, Central Services, and Urban Forestry Departments, and Private Citizens, City Council Members, Local Engineers, and Northwest Indiana Water Quality Experts.





## **BLUE SWAG**

Another Partner that helps - Purdue University.





- ► Annual Stormwater Drainage Conference
- ► Project Manager's Training





# **BLUE SWAG**

### Major Accomplishments:

- ► Developed a Land Acquisition Strategy
- ► Developed a Green Stormwater Streets Policy





#### **BLUE SWAG**

#### **Land Acquisition Strategy**

- ► Tools and Processes for the City to Acquire Land for Stormwater Management and Conservation/Recreation
  - ▶ Developed a Decision Tree Tool.
  - ► Developed Legal Templates, Protocols, and Processes to Acquire Land.
  - ▶ Identified the Top 20 Parcels Prime for Acquisition,





#### **BLUE SWAG**

#### <u>Green Stormwater Streets Policy</u>

Policy Statement - Provides guidelines for "Green Stormwater Streets" as the standard, for inclusion of green infrastructure to manage stormwater runoff in the design of new City streets or when designing the reconstruction of an existing City street.





#### **BLUE SWAG**

#### **PROMINENT PROJECTS**

Karwick Dumpsite Remediation -

\$2.4 Million Cleanup

**Chency Run Wetland Stormwater Treatment Facility -**

\$2.1 Million Stormwater Treatment System

Total Funds = \$4.5 Million. Only 15% is local funding.





#### Karwick Dumpsite Remediation Project

#### **Partners**

Plews Shadley Law Firm

Jim Meyer Law Firm

Weaver Consulting Engineers

NIPSCO IDEM IDNR USACE









Attorneys at Law

JAMES MEYER & ASSOCIATES, PC



Weaver Consultants Group







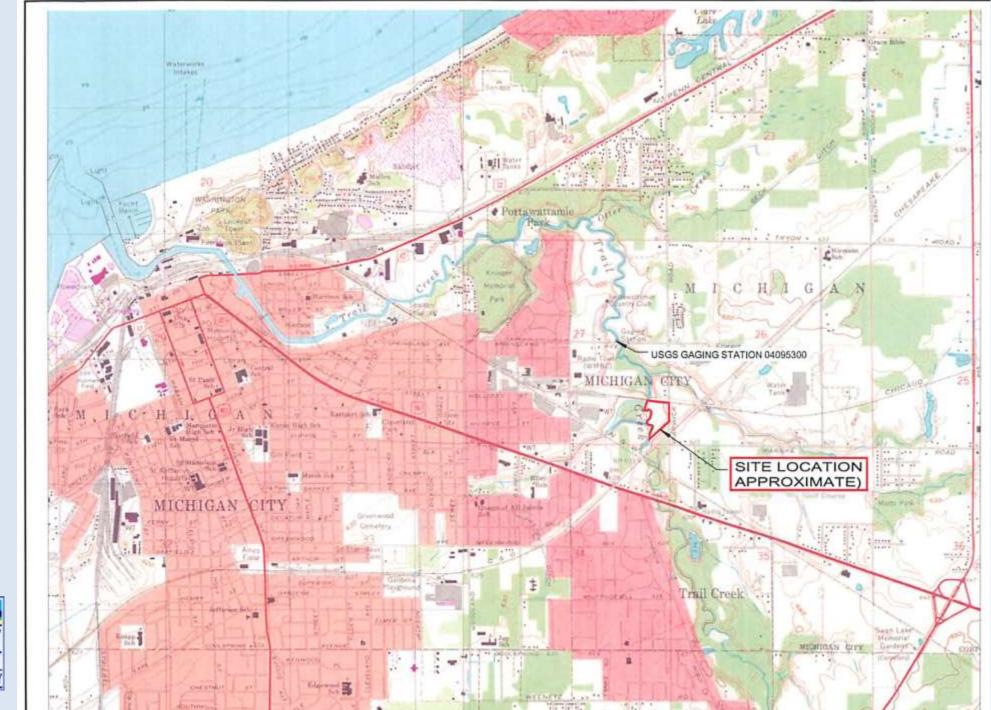


#### The Site:

- Received significant amounts of mainly household refuse, demolition debris, and similar material.
- Dumping occurred from 1965 to 1971.















































**Placed 250 Tons of Glacier Stone on Stream Bank** 









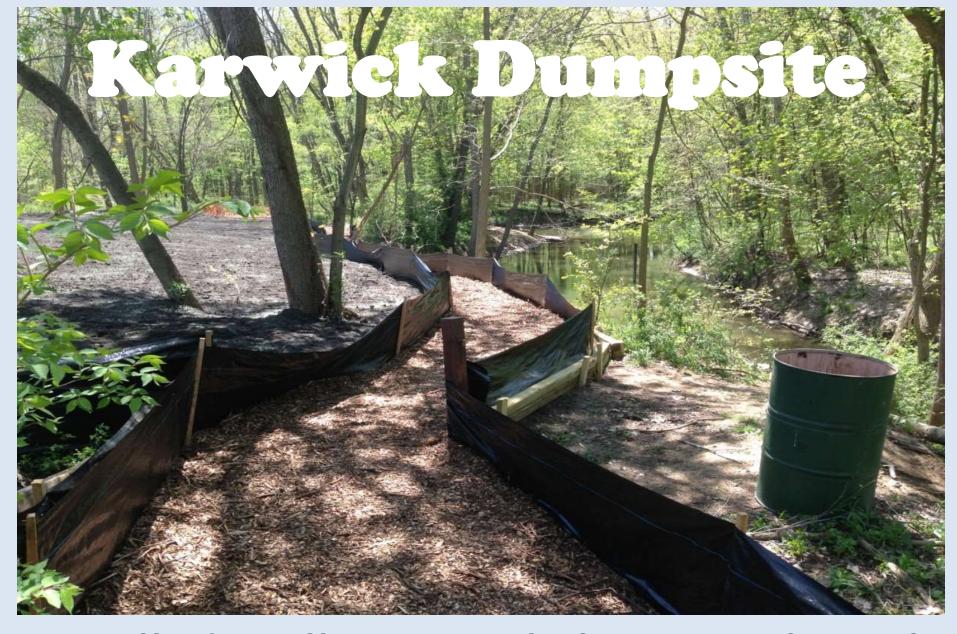






Covered Disturbed Areas with Clay and Black Dirt and Seeded with Grass



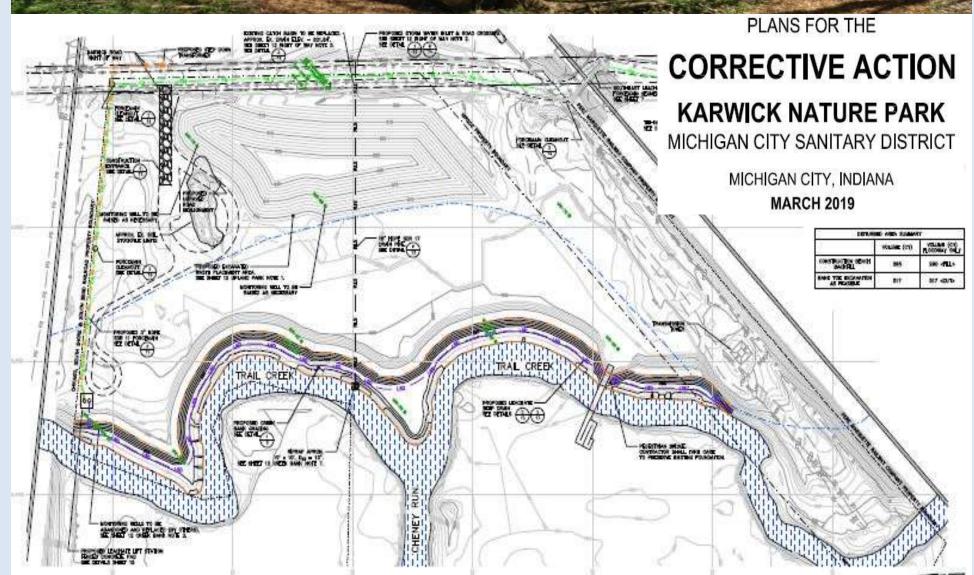




**Installed Walkway Trail along Creek Bank** 



### Karwick Dumpsite









#### Remediation Costs:

- Estimated at \$2.4 million
- Total post-corrective action care expense of approximately \$795,000 (current dollars) for 30 years











#### Cheney Run Stormwater Wetland Treatment Project **Partners**

Alliance for the Great Lakes Delta Institute

Sustain Our Great Lakes Program







National Fish and Wildlife Federation Partners: ArcelorMittal, LAKES

U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Forest Service, Oceanic and Atmospheric Administration, and USDA's Natural Resources Conservation.











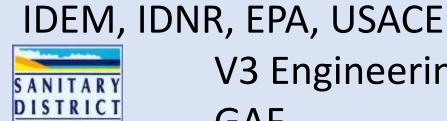












V3 Engineering GAF



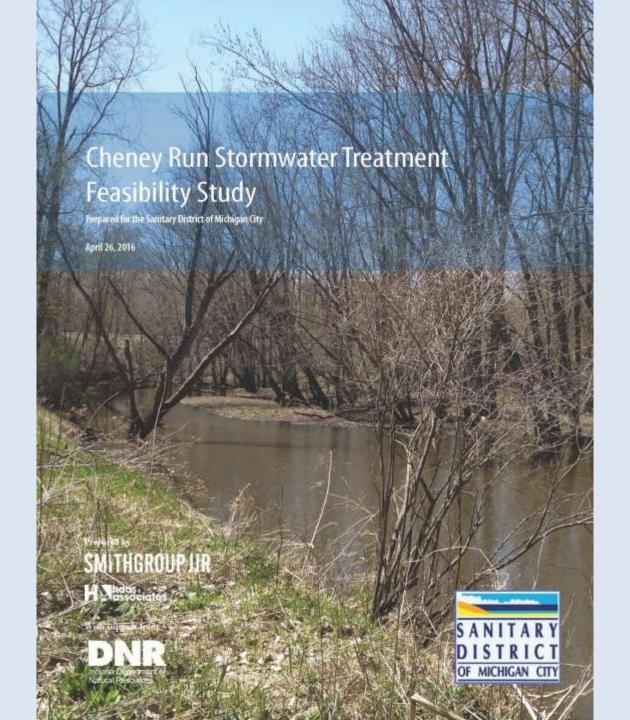






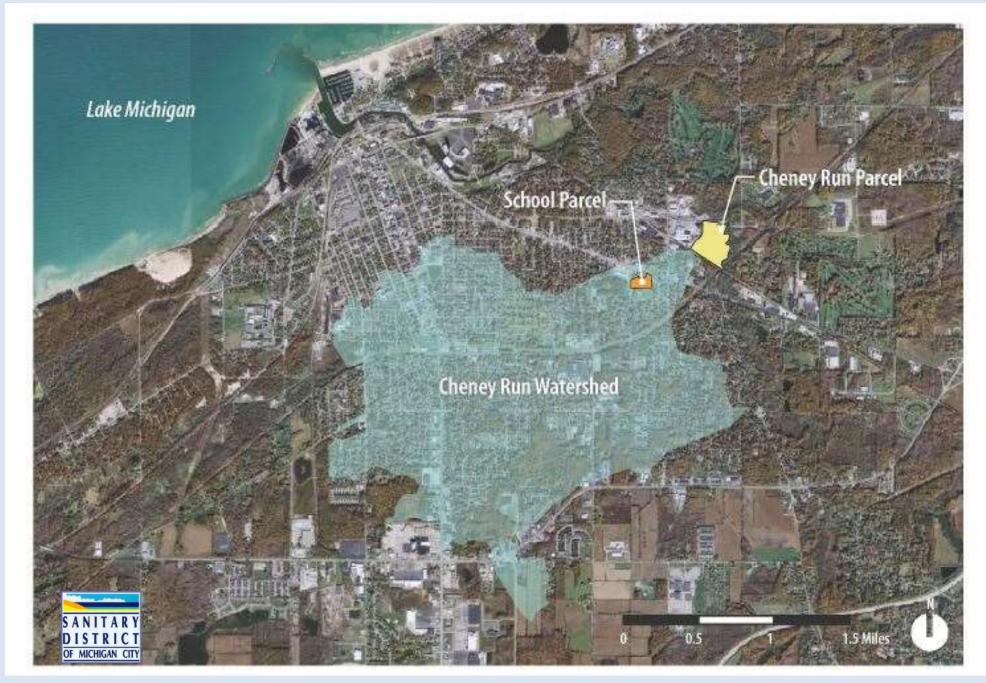










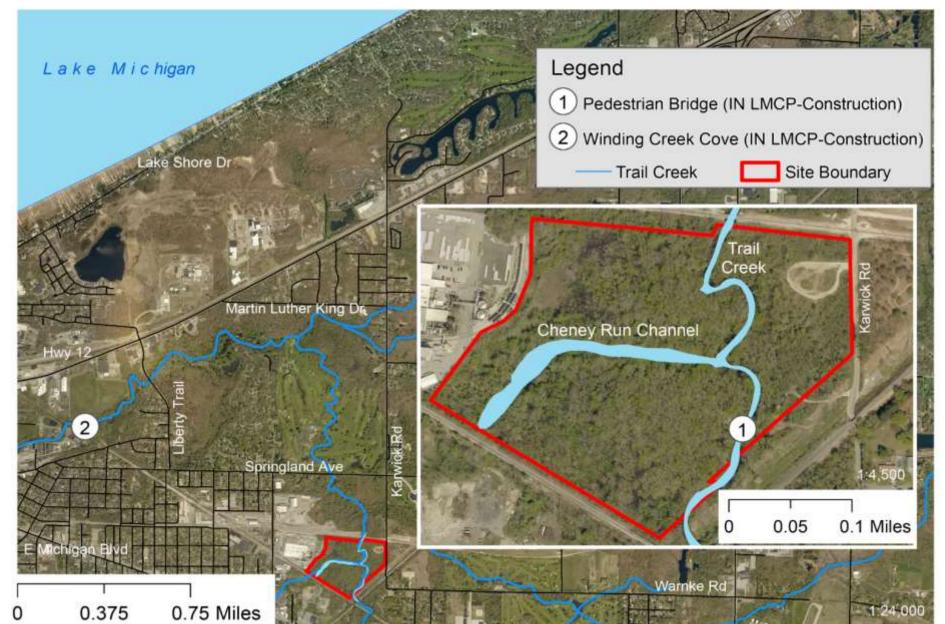








#### **Cheney Run Wetland Project**























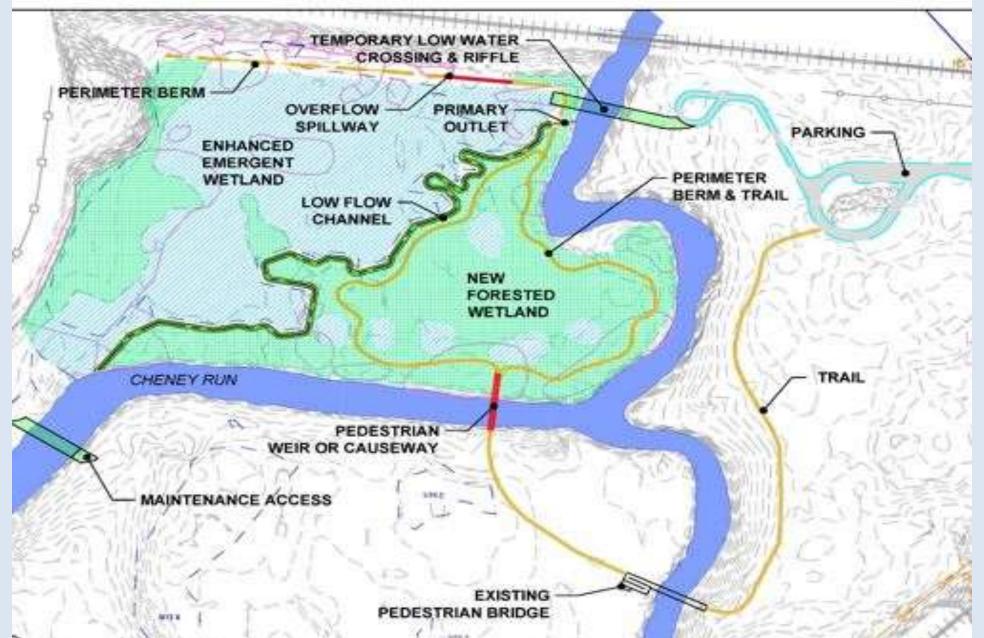








#### **Cheney Run Wetland Treatment System**







## Cheney Run Wetland Treatment System Project Goals

- Treatment via passive green infrastructure systems rather than pumped systems.
- Capture and treat approximately 37.5 million gallons of stormwater, annually.
- Reduce sediment loading by approximately 28,000 lbs/yr and nutrient loading by approximately 207 lbs/yr.
- Enhance, restore, and/or create up to 5.2 acres of wetlands.





# Cheney Run Wetland Treatment System Project Budget

- Estimated Budget: \$2.28 million
- Secured Funds: \$1.89 million
  - Secured Grants: \$1.24 million
    - \$650,000 from Sustain Our Great Lakes
    - \$500,000 from Great Lakes Restoration Initiative (US EPA)
    - \$90,000 from IDNR Lake and River Enhancement (LARE)
  - Secured Match: \$650,000 (\$80,000 in-kind & \$570,000 cash)
- Pending Grant Applications
  - \$30,000 from Indiana Lake Michigan Coastal Program
  - \$100,000 from IDNR Lake and River Enhancement





# GREAT LAKES EMERGING CHAMPIONS and MENTORING NETWORK

#### **Partners:**









# GREAT LAKES EMERGING CHAMPIONS MENTORING NETWORK

#### **GREEN INFRASTRUCTURE**

Green infrastructure is an approach to water management that protects, restores, or mimics nature and the natural water cycle.

Green infrastructure is effective, economical, and enhances the community's quality of life.

Green infrastructure means planting trees and flowered areas, restoring wetlands, and naturally treating stormwater through percolation and settling.

#### Wabash Street Green Infrastructure









### Michigan Blvd Planter Areas













# GREAT LAKES COMMISSION'S EMERGING CHAMPIONS

#### Program Goals

- Develop a Rainwater Rewards
   Stormwater Calculator
- Receive Mentoring
- Become a Champion





### Rainwater Rewards Stormwater Calculator

### Concept

 An online and mobile friendly stormwater calculator that shows the total value of GI investments.





### Rainwater Rewards Stormwater Calculator

### Concept

 This value-based approach helps make decisions on GI investments with a more complete picture of the costs and benefits associated with that investment.



### Rainwater Rewards Stormwater Calculator

## <u>Implementation</u>

The Michigan City Rainwater Rewards
 Stormwater Calculator was developed and became fully operational in 2018.





# Great Lakes Commission's Green Infrastructure Champions Pilot Program

- Mentors and Mentees / Protégés
- Mentoring Networks
- Development of Champions





### **MENTORSHIP**

Mentorship is a relationship in which a more experienced or more knowledgeable person (the Mentor) helps to guide a less experienced or less knowledgeable person (the Mentee or Protégé).





# **MENTORSHIP**







### CHAMPION/MENTOR & MENTEE/PROTÉGÉ







### CHAMPION/MENTOR & MENTEE/PROTÉGÉ







### **CHAMPION**

 Think of a Champion as a Mentor but with a little more skin in the game.





### **CHAMPION**

- A Champion actively sees that your projects work;
- A Champion makes sure you receive the proper recognition for your projects; and
- A Champion provides you with timely feedback so that you can improve.





### CHAMPION vs. MENTOR

A Champion is your voice when you are not around.

 Mentors give you their time and advice, and they are sometimes willing to make recommendations.





### CHAMPION vs. MENTOR

...But what distinguishes a Champion from a Mentor is that a Champion is willing to take more of a risk on you.

Jeanette Cajide, Entrepreneur Magazine, https://www.entrepreneur.com/article/252500





# MENTORING NETWORKS









### **MENTORING NETWORKS**

# **Great Lakes Commission's Green Infrastructure Champions Pilot Program:**

- Quarterly Webinar Meetings
  - Projects Updates and Goals
  - Open Discussion with Colleagues,
     Mentors, and Champions







### PARTNERS FOR CLEAN AIR



### Clearing the Air Together

Thank You to Our 2019 Gold and Silver Members























# Clearing the Air Together

Partners for Clean Air Annual Luncheon and Awards Ceremony
May 2020

The Clipper Room at the Hammond Port Authority 701 Casino Center Drive Hammond, IN 46320







# Clearing the Air Together

#### **2019 Award Winners**

<u>Commercial Award</u> - Burns International Harbor, Portage, IN

<u>Mark Siminski Bicycling Award</u> - The Bike Stop, Mich. City

<u>Industrial Award</u> - American Licorice, LaPorte, IN

<u>Municipal Award</u> - Michigan City









### Partners for Clean Air Day at US Steel Yard August 4, 2019 – 2:10 PM Gary RailCats vs Milwaukee Milkmen













































### CONFERENCE ON THE ENVIRONMENT

<u>Conference</u>	<u>Year</u>	<u>Attendees</u>	Key Note Speaker
Year 1	2014	102	<u>David Ullrich</u> , Executive Director, Great Lakes and St. Lawrence Seaway Cities Initiative
Year 2	2015	158	Honorable, Pete Visclosky, U.S. Congressman, Lake Michigan and the Marquette Plan
Year 3	2016	160	<u>Paul Labovitz</u> , Superintendent, Indiana Dunes National Lakeshore, Celebrating 100 Years of the National Park System
Year 4	2017	160	George, Hawkins, Esq. Chief Executive Officer and General Manager, District of Columbia Water and Sewer Authority, Crisis to Opportunity-Extreme Weather, Old Infrastructure, Innovation
Year 5	2018	218	<u>Amber McCullum</u> , Ph.D., Research Scientist, Bay Area Environmental Research, Using NASA Satellites to Monitor a Changing Earth
Year 6	2019	221	Captain David Rearick, Circumnavigator, Sail Around the World

OF MICHIGAN CITY







#### In Celebration of Coastal Awareness Month

### FREE The W. G. Jackson FREE EVENT

June 13 and 14, 2020 Trail Creek Harbor, Michigan City Indiana

Lake Michigan
Free Tour Times Available:
Saturday June 13th: 11:00 AM
Saturday June 13th: 12:30 PM
Saturday June 13th: 2:00 PM

Sunday June 14th: 11:00 AM Sunday June 14th: 12:30 PM Sunday June 14th: 2:00 PM



The W. G. Jackson will depart promptly from Michigan City's Millennium Park located just over the Franklin Street Bridge on Trail Creek Harbor.

Call the Michigan City Sanitary District at 219 874-7799 to Reserve Your Spot











### W. G. Jackson

The *W. G. Jackson* serves researchers and educational groups from her berth at ports of call along Lake Michigan. Her home is the Lake Michigan Center, Grand Valley State University,

Muskegon, Michigan.

#### **Partners:**

**Grand valley State University Trail Creek Watershed Group** 

























# ... And That's the Story... Through Partnerships, Pollution was Prevented a Clean Environment was Sustained, and...







# ...They All Lived Happily Ever After.







### Questions?





